

## REMARKS

Claims 1, 2, 11 and 12 have been rejected under 35 USC 102(b) as anticipated by Liang or alternatively, under 35 USC 103(b) as unpatentable over Liang in view of Christodoulides.

The Examiner has rejected the independent claims based on Liang either because Liang discloses all the features of claim 1 (considering that the pump signal is not actually a feature of claim 1, see page 3 of the Office Action), or because the invention defined in the independent claims would be obvious in view of Liang when combined with the pump signal of Christodoulides.

All of the independent claims have been amended to recite the use of a pump signal is an explicit feature. Accordingly, the rejection based upon Liang as anticipation is clearly overcome.

As to the rejection based upon obviousness, it must be first pointed out that Liang (and its Figure 3, in particular) relates to the case where two information-carrying signals are transmitted in opposite direction (see e.g. column 2, lines 37-43 and column 9, lines 36-49) and teaches that this simple use of counter-propagating signals would be sufficient to “*significantly* [reduce]” the Raman effect (see again column 2, lines 37-53).

The teachings provided in Liang would therefore obviously not apply to a pump signal propagating in a direction opposite from the information-carrying signal because the pump signal is meant to amplify the information-carrying signal. Accordingly, one skilled in the art would know that applicant’s invention is significantly different from the signal solution previously used for an information-carrying signal such as taught by Liang.

As a result, there is no teaching in Liang that would lead one to apply discrimination means to a diverted pump signal.

Turning now to Chistodoulides, this reference merely teaches to use circulators to combine an information-carrying signal and a pump signal within an optical fiber where a high pass filter is meant to remove noise (see e.g. column 4, line 52 to column 5, line 16). According to Chistodoulides, the filtering applies in the portion where the pump signal P and the information-carrying signal S are combined (see e.g. column 5, lines 8-10) and Christodoulides therefore teaches away from the claimed invention where the wavelength discrimination means apply in a portion where the pump signal has been separated from the information-carrying signal, because of the divertor means.

For the same reason, the proposed combination of the two references would be inappropriate because Liang teaches to separate signals propagating in opposite directions whereas Christodoulides teaches to apply a same filter to signals propagating in opposite directions.

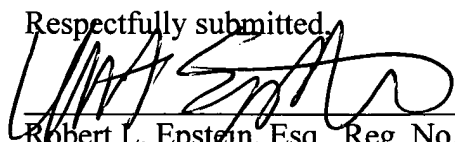
Considering for completeness the rather specific embodiment of Figure 12 of Christodoulides, it may be pointed out that here again that this reference teaches away from the claimed invention as no filtering applies in path 74 used by the pump signal, as opposed to the claimed invention where the discrimination means apply to the optical propagation medium where the pump signal is diverted by the divertor means.

Accordingly, neither Liang nor Christodoulides could be considered to suggest the invention as now defined in the amended claims.

New claim 15 has been presented. New claim 15 is dependent upon claim 1, as amended and therefore defines over the cited art for the same reasons as claim 1 as

amended, noted above. Further, claim 15 requires that the discriminating means suppresses the Rayleigh backscattering signals associated with the corresponding information-carrying signal while allowing the pump signals to pass.

Respectfully submitted,



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